

## CLAIMS

1. Equipment for the heat treatment of a target zone of biological tissue (410), comprising:
- 5 - energy generating means (100) for suppling energy locally in the target zone;
- means (200) for measuring and recording the temperature in the target zone;
- 10 - a control unit (300) comprising means (330) for determining, from the temperature measured in the target zone, the amount of energy having to be supplied to the target zone, and means for controlling (350) the energy generating means (100) to deliver this <sup>energy</sup> ~~power~~ value;
- 15 characterized in that the control unit (300) furthermore comprises means (320) of numerically processing, point by point, the spatial temperature distribution in the target zone and its surroundings, in order to calculate temperature gradients.
- 20
2. The heat treatment equipment as claimed in claim 1, characterized in that the control unit (300) furthermore comprises means (340) for estimating the local heat energy losses, from an estimate of the heat
- 25 conduction and of the spatial temperature distribution in the target zone and its surroundings.
3. The heat treatment equipment as claimed in one of the preceding claims, characterized in that the energy
- 30 generating means (100) emit focused ultrasound.
4. The heat treatment equipment as <sup>mult. dep.</sup> claimed in one of the preceding claims, characterized in that the means (200) for measuring and recording the spatial
- 35 temperature distribution comprise a magnetic resonance imaging apparatus. MRI

- 25 -

5. The heat treatment equipment as <sup>mult. dep.</sup> claimed in one of  
the preceding claims, characterized in that it  
comprises means for evaluating the spatial  
distribution, in the target zone and its surroundings,  
5 of the energy supplied to the target zone.